Attorney's Docket No. 16-302

<u>Patent</u>

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the

Application of:

NICHOLAS BRUNO, ET AL.

Examiner: N

N/A

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MAR 0 3 2004

Application No.:

10/608083

Art Unit:

N/A

Technology Center 2100

Filed:

JUNE 27, 2003

Title:

METHOD AND APPARATUS FOR

USING CONDITIONAL

SELECTIVITY AS FOUNDATION FOR EXPLOITING STATISTICS ON QUERY EXPRESSIONS

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Enclosed is a copy of Information Disclosure Citation Form PTO-1449 together with a copy of the document(s) listed on that form. Applicant respectfully requests that the Examiner consider the listed document(s), initial the enclosed Form PTO-1449 to indicate such consideration, and return a copy of the initialed Form PTO-1449 to the Applicant.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §

1! 99(b)y certify that this paper is being deposited t day with the U.S. Postal Service as 1st Class Mail addressed to the Assistant Commissioner for Patents, RO. B x 1450, Alexandria, VA 22313-1450

on August 26, 2003

Serial No. 29/170,001 Attorney Docket No. 16-302 Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this Information Disclosure Statement is, or is considered to be, material to patentability.

The Commissioner is hereby authorized to charge any required fee under 37 C.F.R. § 1.17 in connection with this communication to our Deposit Account No. 23-0630.

Respectfully submitted,

Date: August 26, 2003

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<del>fechnol</del>ogy Center 2100 Attorney=s Docket Number Application Number Form PTO-1449 U.S. DEPARTMENT OF 10/608,083 16-385 (Modified)Patent and Trademark Office Applicant Filed INFORMATION DISCLOSURE CITATION Nicolas Bruno, et al. June 27, 2003 Examiner Art Unit Sheet 1 of 1 **U.S. PATENT DOCUMENTS** FILING DATE IF EXAMINER INITIALS DOCUMENT NUMBER CLASS SUBCLASS DATE NAME FOREIGN PATENT DOCUMENTS COUNTRY DOCUMENT NUMBER TRANSLATION OTHER DOCUMENTS N. Bruno and S. Chaudhuri. Exploiting Statistics on Query Expressions for Optimization. In Proceedings of the 2002 ACM International Conference on Management of Data (SIGMOND'2), 2002. N. Bruno and S. Chaudhuri. Efficient Creation of Statistics over Query Expressions. In Proceedings of the 19th International Conference on Data Engineering, 2003. N. Bruno, S. Chaudhuri, and L. Gravano. STHoles: A Multidimensional Workload-Aware Histogram. In Proceedings of the 2001 ACM International Conference on Management of Data (SIGMOND '01), 2001. S. Chaudhurin et al. Optimizing Queries with Materialized Views. In Proceedings of the 11th International Conference on Data Engineering, 1995. J. Goldstein and P.-A. Larson. Optimizing Queries Using Materialized Views: A Practical, Scalable Solution. In Proceedings of the 2001 ACM International Conference on Management of Data (SIGMOND'01), 2001. G. Graefe. The Cascades Framework for Query Optimization. Data Engineering Bulletin, 18(3), 1995. G. Graefe and W. McKenna. The Volcano Optimizer Generator: Extensibility and Efficient Search. In Proceedings of the 9th Int. Conference on Data Engineering, 1993. D. Gunopulos et al. Approximating multi-dimensional aggregate range queries over real attributes. In Proceedings of the 2000 ACM International Conference on Management of Data (SIGMOND'00), 2000. L. M. Haas, J. C. Freytag, G. M. Lohman, and H. Pirahesh. Extensible Query Processing in Starburst. In Proceedings of the 1989 ACM International Conference on Management Data (SIGMOND'89), 1989. M. Muralikrishna and D. J. DeWitt. Equi-Depth Histograms For Estimating Selectivity Factors For Multi-Dimensional Queries. In Proceedings of the 1988 ACM International Conference on Management of Data (SIGMOND'88), 1988. V. Poosala and Y. E. Ioannidis. Selectivity Estimation Without the Attribute Value Independence Assumption. In Proceedings of the Twenty-third International Conference on Very Large Databases (VLDB'97), AUG. 1997. V. Poosala, Y. E. Ioannidis, P. J. Haas, and E. J. Shekita. Improved Histograms for Selectivity Estimation of Range Predicates. In Proceedings of the 1996 ACM International Conference on Management of Data (SIGMOND'96), 1996. M. Stillger, G. M. Lohman, V. Markl, and M. Kandil. LEO - DB2's Learning Optimizer. In Proceedings of the 27th International Conference on Very Large Databases, 2001.

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 3 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

DATE CONSIDERED

EXAMINER